



**The North American Invasive
Species Network (NAISN):
*Needed infrastructure in a multi-
jurisdictional environment***

The U.S. Federal World – No lead agency!

USA - Federal agencies/institutions with entities that have authority, and/or have divisions or programs pertaining to non-native & invasive species ~ 176 ✓

Federal Agencies:

- U.S. Department of Agriculture (82)**
- U.S. Department of the Interior (53)**
- U.S. Department of Commerce (10)**
- U.S. Department of Defense (5)**
- U.S. Department of Health and Human Services (2)**
- U.S. Department of Homeland Security (4)**
- U.S. Department of State (1)**
- U.S. Department of Transportation (2)**
- U.S. Environmental Protection Agency (10)**
- NASA (3)**
- NSF (2)**
- Smithsonian Institution (2)**



Source: NISC



In 2010, there were numerous Regional Centers, Institutes, and Labs plus two networks in North America dealing with Invasive Species on public conservation lands and waterways

Center for Aquatic Plants

- 1976 Florida Legislature
- Director, limnologist, extension specialist
- Three biologists
- Two buildings
- \$150,000/year
- No faculty

March 9-11, 2010 – West Palm Beach, Florida



November 15-17, 2010 – Boise, Idaho



April 22-23, 2012 – Cancun, Mexico



Established 2010

NAISN's Overall Goal –
Link existing invasive species
regional efforts
(Centers/Institutes/Labs/Networks)
into an overall coordinated network



Mission Statement:

A consortium that uses a coordinated network to advance science-based understanding and enhance management of non-native invasive species

NAISN HUBS/NODE 2015



NAISN Hubs (7) and Nodes (4) 2015



- **California Invasive Plant Council - California**
- **Center for Invasive Species Management – Montana**
- **Center for Aquatic and Invasive Plants - Florida**
- **National Institute of Invasive Species Science – Colorado**
- **Center for Invasive Species and Ecosystem Health – Georgia**
- **Invasive Species Research Institute – Canada**
- **Canadian Aquatic Invasive Species Network – Canada**
- **Conabio – Mexico**
- **Texas Invasive Species Institute - Texas**
- **Invasive Species Centre – Ontario, Canada**
- **Invasive Species Council of British Columbia - Canada**





NAISN HUBS/NODE Existing Services

- Information Technology
- Research and Mapping
- Plant and Animal Data
- Regional Databases
- Hosts >32 websites
- EDD MAPS, Apps
- Education and Extension
- On-line courses and webinars
- Coordination and collaboration



A screenshot of the National Network of Invasive Plant Centers website. The page features a navigation menu at the top with links like 'How To...', 'Report & Map Invasives', and 'Landowner Assistance'. Below the menu, there are several sections: 'Think Local Invasive exotic' with a 'WEED PREVENTION AREAS' banner, 'SE-EPPC Southeast Exotic Pest Plant Council' with a photo of white flowers, and 'National Network of Invasive Plant Centers' with a green leaf background. A sidebar on the left lists 'STATE CHA' for various states and 'RELATED ORGANIZATI' for 'National A EPPC's'. At the bottom, there is a 'Current network members:' section with a map of the United States and a 'NATIONAL CWMA MAP'.



Mission: NAISN is a consortium that uses a coordinated network to advance science-based understanding and enhance management of non-native invasive species.

Join NAISN

NAISN is recruiting new hubs, nodes, and affiliate members. To learn more and fill out an application, [click here](#).

- NAISN Services
- Member Organizations
- Contact
- Press Releases

New Invasive Species Publications/Websites

[Invasive Species of Mexico](#)

[A Comparative Analysis of State Programs and Funding for Terrestrial Invasive Plant Control \(2013\)](#)

[Invasive Species: Major Laws and the Role of Selected Federal Agencies \(2013\)](#)

Global Invasive Species Information Network (GISIN)

GISIN provides a platform for sharing invasive species information at a global level via the internet. Visit NAISN's [Species](#) section to access GISIN resources.

Directory of Invasive Species Organizations in North America

This directory offers a comprehensive list of management, research, and outreach resources for invasive species in North America.

Connect with NAISN

NAISN is on Facebook. Like our page for news and updates.

Find us on Facebook

[Donate](#)



Support Provided By



The Commission for Environmental Cooperation (CEC) is providing financial support to grow the NAISN network and support its member organizations. The CEC has a tri-national mandate to promote healthy ecosystems in North America and protect trans-boundary landscapes and ecosystems from adverse environmental impacts, including the threat of invasive species. NAISN gratefully acknowledges the CEC's ongoing support, which has been instrumental in promoting knowledge transfer, training, and development of data management tools for invasive species.

CDC-like Website

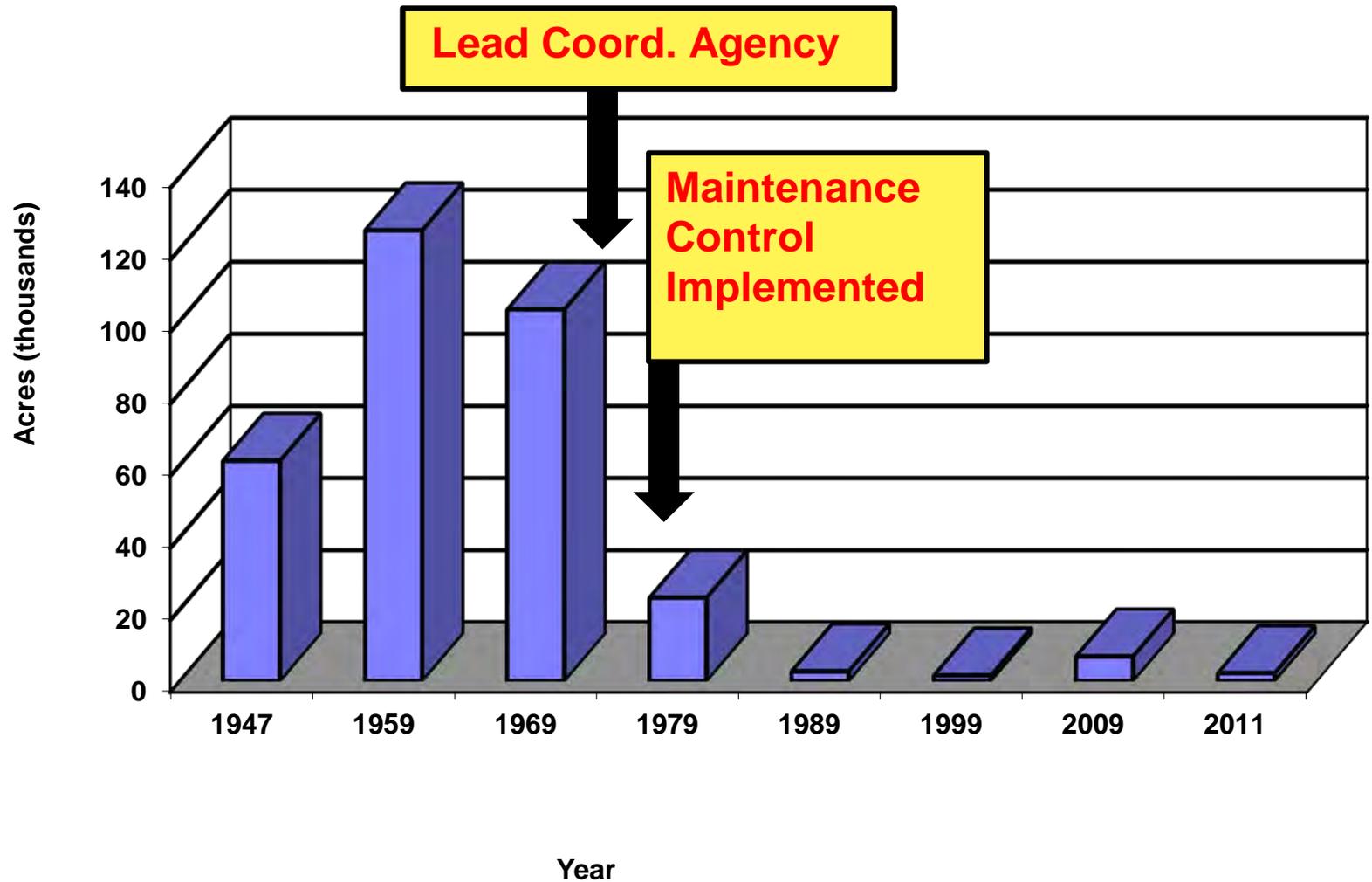


The Florida Experience: Translating successful IPM programs nationwide



**Water Hyacinth,
a native from
South America**

Water hyacinth populations in Florida over time



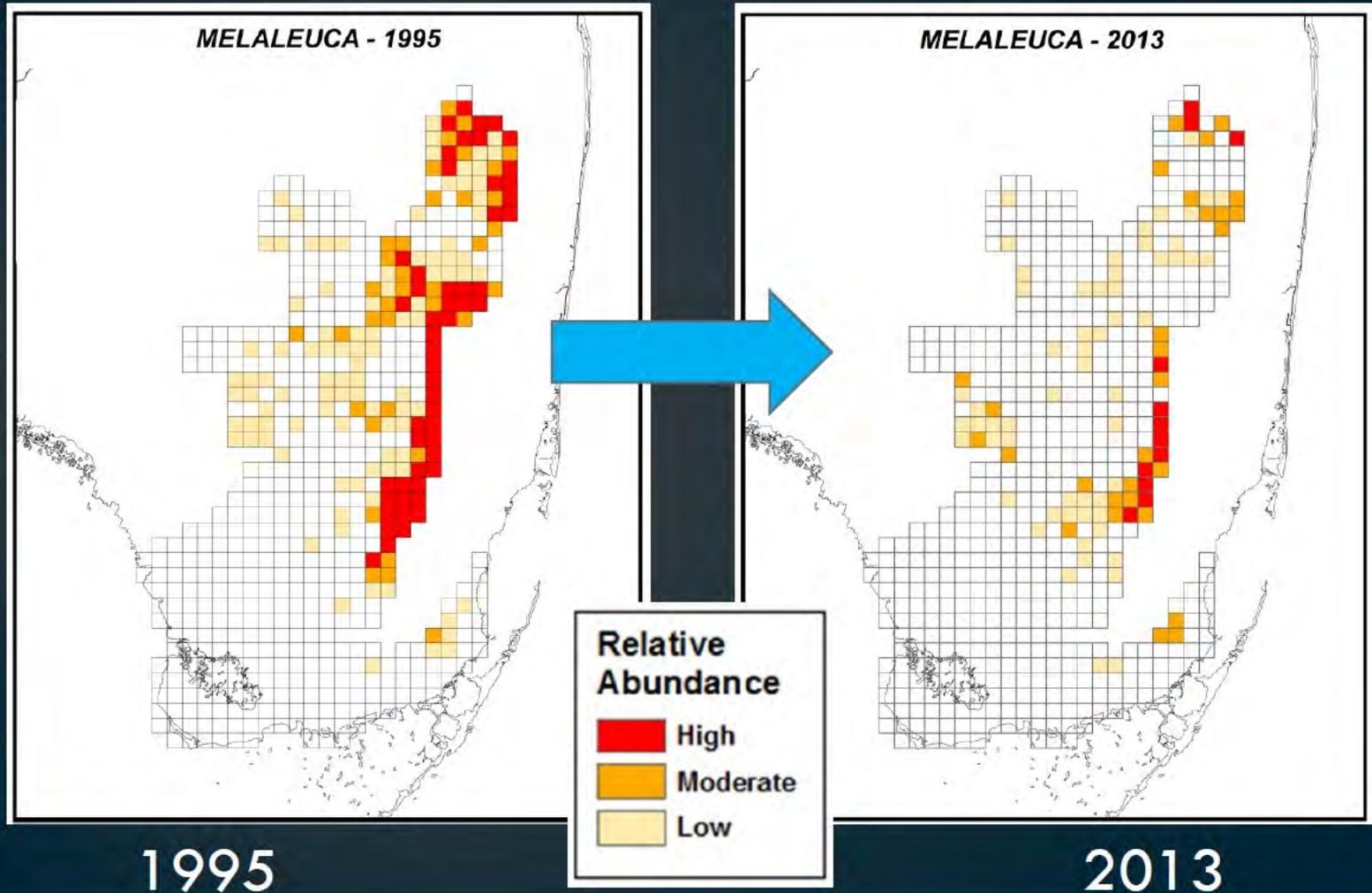


Australian melaleuca
trees showing
seedling/sapling
spread after a fire



Successful Florida IPM (1.8 million acres)

Melaleuca 1995 - 2013



Ten lessons (or components) for a successful Invasive Plant Management Program

- 1. Designate a lead coordinator entity**
- 2. Define the problem**
- 3. Prioritize species for management**
- 4. Have an overall goal**
- 5. Establish funding guidelines**
- 6. Rapid response and prevention**
- 7. Local participation - critical to success**
- 8. Research**
- 9. You must adapt to a changing environment**
- 10. Outreach efforts has to be generational**



1. NAISN could be the lead coordinating entity for invasive species on PCLs in the USA

(With adequate funding, essentially the CDC for invasive species)

2. Define the Problem

- **Track Invasive Species Expenditures by Each State on Public Conservation Lands**
- **Define Invasive Species ranges and what do they actually threaten (surveys, impacts)**
- **Conduct, Fund, Track, and Coordinate Economic Impact Studies in North America**



The Ten Most Important Invasive Species or Invasive Species Assemblages in North America in 2015

Asian Carp Assemblage:

Grass carp (*Ctenopharyngodon idella*)

Silver carp (*Hypophthalmichthys molitrix*)

Bighead carp (*H. nobilis*)

Black carp (*Mylopharyngodon piceus*)

Asian gypsy moth (*Lymantria dispar*)

Burmese python (*Python bivittatus*)

Emerald Ash borer (*Agrilus planipennis*)

Eurasian wild pig (*Sus scrofa*)

Lionfish (*Pterois spp.*)

Hydrilla (*Hydrilla verticillata*)

Mussel Assemblage:

Quagga Mussels (*Dreissena bugensis*)

Zebra mussels (*Dreissena polymorpha*)

Purple loosestrife (*Lythrum salicaria*)

Salt cedar (*Tamarix spp.*)

3. Prioritize Invasive Species for Management

- **Make CDC-like recommendations based on science (not all invasive species are equal)**
- **Collect and interpret scientific and technical information regarding invasive species risks**
- **Through risk and pathway analyses, identify, assess, and prioritize new threats**
- **Identify gaps in knowledge to guide establishment of research priorities.**

4. Develop realistic management goals for each species

- Develop recommendations if quarantine, eradication, or maintenance control can be achieved**
- Develop protocols for emergency quarantine especially around ports-of-entry**

5. Help with Early Detection and Rapid Response

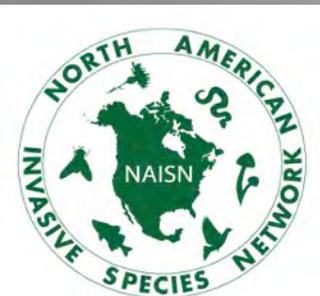
- 1. Emergency Management Coordination**
- 2. Coordinate funding and help develop response priorities at the local level - CISMAAs**
- 3. Provide technical assistance and other resources**
- 4. Provide guidance and training on effective response measures**
- 5. Work with the public & develop easy web based ID tools & pathway to ID new arrivals, phone apps!**



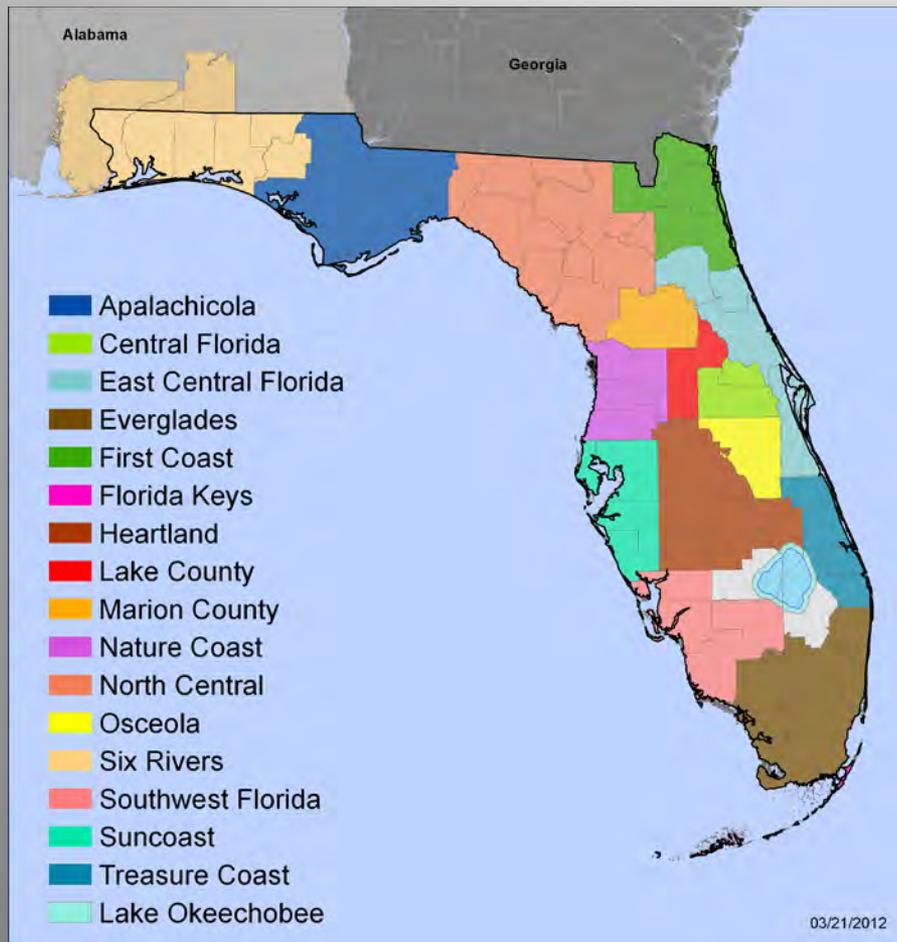
**Center for Invasive Species
and Ecosystem Health
BUGWOOD NETWORK**



Smart phone apps



6. Local Participation - help form and nurture partnerships or CISMAs within all the states



Example:

Florida CISMAs

(Cooperative Invasive Species Management Areas)

17 CISMAs –

- Ownership of the issue
- Private landowners
- CISMA workdays
- Distribution maps
- Early warning system
- Species information
- Tools, BMPs
- Public awareness

7. Help coordinate, disseminate research



- Track research in U.S.
- Encourage research on IS pathways, dev. exclusion technology
- Increase and host more webinars aimed at dispersing current research
- Develop IS Watch List for each state



Climate Shift – a wildcard for invasive species



8. Climate Shift – Strategies

- Many ecosystems will depend on early detection and rapid response to invasive species as the climate warms
- Help with identification and diagnostics
- This will call for more cooperation and coordination that exists today



9. NAISN could help establish a national public awareness campaign along with education



North American Invasive Species Forum Conference

- **Will use the existing International Steering Committee (from the Weeds Across the Border team) to develop the conference agenda**
- **Conference topics will include jurisdictional issues, international policy issues, planning, and big picture matters such as prevention, etc.**
- **Conference focus invasive plants but will include invasive animal species too.**



North American Invasive Species Forum Conference

- **Sessions on invasive species tracking, mapping, prevention, and international jurisdictional matters and others along with panel discussions**
- **Looking at February or October 2017**
- **Conference location – South Florida, field trips to the Everglades, likely 100-150 participants**



www.naisn.org